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(21) International Application Number: PCT/NL00/00117 (22) International Filing Date: 24 February 2000 (24.02.00) (30) Priority Data: 99200536.3 24 February 1999 (24.02.99) EP (71) Applicant (for all designated States except US): NEDERLANDSE ORGANISATIE VOOR TOEGEPAST-NATUURWETENSCHAPPELIJK ONDERZOEK TNO [NL/NL]; Schoemakersstraat 97, NL-2628 VK Delft (NL). (72) Inventors; and (75) Inventors/Applicants (for US only): JETTEN, Jan, Matthijs [NL/NL]; Costerlaan 3 B, NL-3701 JL Zeist (NL). VAN DEN DOOL, Ronald, Tako, Marinus [NL/NL]; Dalkruid 1, NL-4102 KR Culemborg (NL). VAN HARTINGSVELDT, Wim [NL/NL]; Victor Hortastraat 27, NL-3822 VM Amersfoort (NL). VAN WANDELEN, Mario, Tarcisius, Ragmandus [NL/NL]; Roosenveltlaan 14, NL-3705 PG Zeist (NL).		(74) Agent: JORRITSMA, Ruurd; Nederlandsch Octrooibureau, Scheveningseweg 82, P.O. Box 29720, NL-2502 LS The Hague (NL). (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>Without international search report and to be republished upon receipt of that report.</i>
(54) Title: PROCESS FOR SELECTIVE OXIDATION OF PRIMARY ALCOHOLS AND NOVEL CARBOHYDRATE ALDEHYDES		
(57) Abstract <p>A process for producing aldehydes, and/or carboxylic acids is described, in which a primary alcohol, especially a carbohydrate, is oxidised using a catalytic amount of a nitrosonium compound obtained by oxidising a nitroxyl compound in the presence of an enzyme compound capable of oxidation. Further described are oxidised carbohydrates containing at least 1 cyclic monosaccharide chain group carrying a carbaldehyde group per 25 monosaccharide units and per molecule.</p>		

ABSTRACT OF THE DISCLOSURE

A process for producing aldehydes, and/or carboxylic acids is described, in which a primary alcohol, especially a carbohydrate, is oxidized using a catalytic amount of a nitrosonium compound obtained by oxidizing a nitroxyl compound in the presence of an enzyme compound capable of oxidation. Further described are oxidized carbohydrates containing at least 1 cyclic monosaccharide chain group carrying a carbaldehyde group per 25 monosaccharide units and per molecule.